

REMARKS

This responds to the Office Action mailed on October 20, 2005.

Claims 1, 8, and 9 are amended, and no claims are cancelled or added; as a result, 1-16 remain pending in this application.

§102 Rejection of the Claims

Claims 1-10 and 12-16 were rejected under 35 USC § 102(a) as being anticipated by Redl et al. (U.S. 6,064,187).

Claims 1-5, 7-10, and 13-16 were rejected under 35 USC § 102(a) as being anticipated by Rincon-Mora et al. (U.S. 6,188,211).

Applicant has amended the claims so that the terminology used in the claims is consistent with the language of the examples of Figures 4 and 5 of the specification, and to remove ambiguity as to whether a maximum current voltage level is a voltage level associated with a maximum current level or a maximum operating voltage level. Independent claims 1, 7, 8, and 9 as corrected in the present amendments are believed to more clearly reflect the invention as described in the specification, and more clearly distinguish the pending claims from the cited art.

Redl discusses a voltage regulator using a current sensor 64, a voltage reference and voltage output error amplifier 59, and a sensing circuit 78 with comparator 76 to sustain voltage output of a voltage regulator under varying current loads. Redl further describes in the cited portion (col. 10, ln. 65 – col. 11, ln. 15) operation of the circuit under varying current conditions, but fails to consider providing a minimum operating voltage when the current drawn is at a minimum but nonzero load current level. Figures 10a and 10b of Redl and the accompanying description illustrate a transition from one operating voltage level to another, but fail to consider providing a maximum voltage when the current drawn is at a minimum but nonzero load level.

The pending claims, in contrast, each recite that an output voltage is at a maximum operating voltage level when the current drawn is at a minimum operating but nonzero load current level, as is further described in Figure 3, and in the differences between Figures 1-2 and Figures 4-5 of the pending application.

Rincon-Mora senses an output voltage of a voltage regulator 10 via a voltage divider network made up of high-resistance resistors 40 and 42. It further uses a voltage feedback network to regulate the output voltage based on the sensed output voltage from the voltage divider network. Rincon-Mora fails to consider monitoring output current, and does not appear capable of monitoring or using output current to adjust voltage. More significantly, Rincon-Mora does not disclose adjusting a supply voltage such that the voltage is at a maximum operating voltage level when the current drawn is at a minimum operating but nonzero load current level, as is present in each of the pending independent claims.

Because the pending claims as amended each clearly recite varying an output voltage such that it is at a maximum operating voltage level when the current drawn is at a minimum operating but nonzero load current level.

Because this element of the pending claims is not found in either cited reference, applicant believes the pending claims are in condition for allowance. Reexamination and allowance of these pending claims is therefore respectfully requested.

§103 Rejection of the Claims

Claim 11 was rejected under 35 USC § 103(a) as being unpatentable over Redl et al. (U.S. 6,064,187) in view of Covington et al. (U.S. 6,031,749).

This claim depends from an independent claim believed to be in condition for allowance, as explained above in greater detail, and so is believed to be in condition for allowance as dependent on an allowable base claim.

AMENDMENT UNDER 37 C.F.R. 1.116 – EXPEDITED PROCEDURE

Serial Number: 09/476,219

Filing Date: December 30, 1999

Title: NON-LINEAR ADAPTIVE VOLTAGE POSITIONING FOR DC-DC CONVERTERS

Assignee: Intel Corporation

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Dkt: 884.182US1 (INTEL)

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 349-9581 to facilitate prosecution of this application.


If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

ROBERT J. FITE

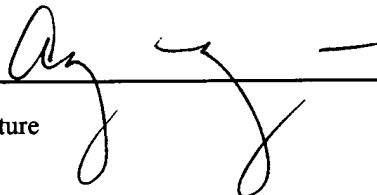
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Date Mar 20 '06

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 20th day of March, 2006.

Amy Moriarty
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